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PRELIMINARY REPORT
INDUSTRY SERIES

1987

Census of Manufactures

MC87-I-22E(P)
Issued April 1989

MISCELLANEOUS TEXTILE GOODS

Industries 2295, 2296, 2297, 2298, and 2299

INTRODUCTION

This report presents preliminary statistics from the 1987 Census of Manufactures for those establishments classified in the industries listed above. These data will be superseded by a more comprehensive final paperbound report. The method of data collection and use of administrative data are discussed in detail in the appendix.

All dollar figures included in this report are at prices current for the year specified and, therefore, unadjusted for changes in price levels. Consequently, when making comparisons to prior years, users should take into consideration the inflation that has occurred.

The definitions of these industries are the same as those used in the 1987 Standard Industrial Classification (SIC) Manual.¹

INDUSTRY 2295, COATED FABRICS, NOT RUBBERIZED

In the 1987 Census of Manufactures, Industry 2295, Coated Fabrics, Not Rubberized, had employment of 10.9 thousand. The employment figure was 1 percent below the 11.0 thousand reported in 1982. Compared with 1986, employment in 1987 increased 12 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$1.5 billion.

In 1987, establishments in this industry accounted for 91 percent of products considered primary to the industry regardless in what industry they were produced (coverage ratio). In 1982, the coverage ratio was 87. The products primary to this industry appear in table 2 and aggregated to \$1.4 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to \$932.4 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 2296, TIRE CORD AND FABRICS

In the 1987 Census of Manufactures, Industry 2296, Tire Cord and Fabrics, had employment of 5.8 thousand. The employment figure was 11 percent below the 6.5 thousand reported in 1982. Compared with 1986, employment in 1987 increased 12 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$1.1 billion.

In 1987, establishments in this industry accounted for 99 percent of products considered primary to the industry regardless in what industry they were produced (coverage ratio). In 1982, the coverage ratio also was 99. The products primary to this industry appear in table 2 and aggregated to \$982.3 million in 1987.

The cost of materials and services used by establishments in this industry amounted to \$683.3 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 2297, NONWOVEN FABRICS

In the 1987 Census of Manufactures, Industry 2297, Nonwoven Fabrics, had employment of 13.2 thousand. The employment figure was 7 percent above the 12.3

¹Standard Industrial Classification Manual: 1987. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

Address inquiries to Bureau of the Census, Industry Division, Washington, DC 20233, or call **Gretchen Dickson** (301) 763-2510.

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thousand reported in 1982. Compared with 1986, employment in 1987 increased 1 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$1.7 billion.

In 1987, establishments in this industry accounted for 66 percent of products considered primary to the industry regardless in what industry they were produced (coverage ratio). In 1982, the coverage ratio was 68. The products primary to this industry appear in table 2 and aggregated to \$2.3 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to \$866.7 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 2298, CORDAGE AND TWINE

In the 1987 Census of Manufactures, Industry 2298, Cordage and Twine, had employment of 6.8 thousand. The employment figure was 3 percent above the 6.6 thousand reported in 1982. Compared with 1986, employment in 1987 increased 13 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was \$531.7 million.

In 1987, establishments in this industry accounted for 94 percent of products considered primary to the industry regardless in what industry they were produced (coverage ratio). In 1982, the coverage ratio was 91. The products primary to this industry appear in table 2 and aggregated to \$481.0 million in 1987.

The cost of materials and services used by establishments in this industry amounted to \$255.9 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 2299, TEXTILE GOODS, N.E.C.

In the 1987 Census of Manufactures, Industry 2299, Textile Goods, N.E.C., had employment of 16.5 thousand.

The total value of shipments for establishments classified in this industry was \$1.5 billion.

In 1987, establishments in this industry accounted for 88 percent of products considered primary to the industry regardless in what industry they were produced (coverage ratio). The products primary to this industry appear in table 2 and aggregated to \$1.4 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to \$753.3 million in 1987. Data on specific materials consumed appear in table 3.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in the tables in this publication:

-	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
(NA)	Not available.
(NC)	Not comparable.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
(X)	Not applicable.
(Z)	Less than half the unit shown.
do	Ditto.
n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
pt.	Part.
r	Revised.
SIC	Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, doz, bbl, and s tons, are used in the customary sense.

CONTACTS FOR DATA USERS

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Census/ASM		
Durables	Kenneth Hansen	(301) 763-7304
Nondurables	Michael Zampogna	(301) 763-2510
Current Industrial Reports		
Durables	Malcolm Bernhardt	(301) 763-2518
Nondurables	Thomas Flood	(301) 763-5911
Import/Export Publications	Foreign Trade Division	(301) 763-5140
Industry Analysis and Forecasts	International Trade Administration	(202) 377-4356

Table 1. Historical Statistics for the Industry: 1987 and Earlier Years

[Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

Year¹	Companies² (no.)	All establishments³		All employees		Production workers			Value added by manufac- ture⁴ (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expendi- tures (million dollars)	End-of- year inventor- ies⁴ (million dollars)	Ratios	
		Total (no.)	With 20 employ- ees or more (no.)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						Spe- cial- ization (per- cent)	Cover- age (per- cent)
INDUSTRY 2295, COATED FABRICS, NOT RUBBERIZED															
1987 Census ----	178	185	92	10.9	271.1	7.9	16.8	175.9	600.6	932.4	1 517.3	65.2	259.5	86	91
1986 ASM -----	(NA)	(NA)	(NA)	9.7	218.1	7.2	14.9	139.4	457.9	713.9	1 172.0	37.4	172.2	(NA)	(NA)
1985 ASM -----	(NA)	(NA)	(NA)	10.4	221.2	7.7	15.7	141.7	464.8	762.4	1 228.2	33.9	178.9	(NA)	(NA)
1984 ASM -----	(NA)	(NA)	(NA)	11.7	235.9	8.6	17.5	148.2	514.3	826.7	1 336.9	25.0	201.4	(NA)	(NA)
1983 ASM -----	(NA)	(NA)	(NA)	10.7	205.8	7.7	15.3	126.7	435.6	685.9	1 129.8	25.9	182.0	(NA)	(NA)
1982 Census ----	188	198	114	11.0	198.5	8.0	15.7	120.8	435.2	676.2	1 115.0	28.4	177.3	88	87
1981 ASM -----	(NA)	(NA)	(NA)	11.4	186.2	8.1	15.9	116.8	376.7	670.2	1 044.7	19.5	158.8	(NA)	(NA)
1980 ASM -----	(NA)	(NA)	(NA)	11.8	171.5	8.3	15.8	102.5	294.5	655.1	951.7	15.3	154.8	(NA)	(NA)
1979 ASM -----	(NA)	(NA)	(NA)	12.9	177.7	9.2	17.5	106.5	336.3	660.8	998.3	27.9	186.8	(NA)	(NA)
1978 ASM -----	(NA)	(NA)	(NA)	12.3	169.8	9.0	18.3	106.8	374.9	573.2	949.1	58.5	167.1	(NA)	(NA)
1977 Census ----	175	191	109	13.6	182.3	9.9	20.9	117.1	413.1	650.5	1 059.0	26.0	190.0	87	89
1976 ASM -----	(NA)	(NA)	(NA)	17.1	207.6	12.5	25.5	133.2	484.3	705.1	1 182.5	25.8	217.9	(NA)	(NA)
1975 ASM -----	(NA)	(NA)	(NA)	15.9	181.5	11.5	23.1	112.0	383.0	607.2	986.1	34.5	199.5	(NA)	(NA)
1974 ASM -----	(NA)	(NA)	(NA)	18.6	190.5	13.4	26.1	120.8	422.5	649.7	1 056.4	51.9	235.6	(NA)	(NA)
1973 ASM -----	(NA)	(NA)	(NA)	18.5	182.8	13.6	28.6	118.1	411.2	559.4	975.9	30.6	169.6	(NA)	(NA)
1972 Census ----	185	202	131	18.0	167.8	13.1	28.2	109.3	382.4	491.7	865.8	29.6	145.7	88	87
INDUSTRY 2296, TIRE CORD AND FABRICS															
1987 Census ----	10	14	14	5.8	113.3	5.1	10.7	91.9	417.0	683.3	1 094.8	14.6	81.1	90	99
1986 ASM -----	(NA)	(NA)	(NA)	5.2	95.1	4.5	8.6	73.8	351.6	653.2	1 007.8	5.3	75.3	(NA)	(NA)
1985 ASM -----	(NA)	(NA)	(NA)	5.7	95.4	4.9	9.0	73.5	342.6	718.3	1 064.4	5.9	81.1	(NA)	(NA)
1984 ASM -----	(NA)	(NA)	(NA)	6.0	101.4	5.2	10.2	81.0	371.6	801.5	1 192.1	14.8	97.1	(NA)	(NA)
1983 ASM -----	(NA)	(NA)	(NA)	6.4	100.5	5.5	10.1	78.6	316.9	737.7	1 063.7	9.1	118.2	(NA)	(NA)
1982 Census ----	12	21	19	6.5	90.5	5.6	9.6	69.7	289.9	687.9	981.5	6.2	123.8	90	99
1981 ASM -----	(NA)	(NA)	(NA)	8.6	110.9	7.4	14.0	88.0	216.9	834.6	1 060.1	4.8	121.8	(NA)	(NA)
1980 ASM -----	(NA)	(NA)	(NA)	8.9	103.6	7.6	13.8	81.8	228.5	782.8	1 009.2	8.3	135.0	(NA)	(NA)
1979 ASM -----	(NA)	(NA)	(NA)	9.7	114.5	8.4	16.5	92.9	256.2	873.1	1 129.2	11.5	122.5	(NA)	(NA)
1978 ASM -----	(NA)	(NA)	(NA)	9.6	103.6	8.3	16.3	83.1	245.0	839.7	1 090.1	10.7	128.4	(NA)	(NA)
1977 Census ----	8	20	20	9.6	94.7	8.5	16.2	78.1	242.1	779.7	1 013.2	7.0	126.7	90	99
1976 ASM -----	(NA)	(NA)	(NA)	10.1	85.5	8.9	17.1	70.8	201.6	652.8	835.7	6.0	134.0	(NA)	(NA)
1975 ASM -----	(NA)	(NA)	(NA)	10.0	74.7	8.9	16.2	61.9	168.4	580.9	748.9	7.7	102.2	(NA)	(NA)
1974 ASM -----	(NA)	(NA)	(NA)	11.4	87.3	10.3	20.7	75.2	210.8	599.0	805.0	8.8	102.1	(NA)	(NA)
1973 ASM -----	(NA)	(NA)	(NA)	10.3	76.1	9.3	19.4	65.8	186.5	543.6	717.6	18.3	89.0	(NA)	(NA)
1972 Census ----	9	18	18	10.0	70.0	9.1	19.4	60.6	145.8	540.1	685.1	8.8	67.3	91	97
INDUSTRY 2297, NONWOVEN FABRICS															
1987 Census ----	107	124	87	13.2	287.3	10.0	20.7	183.7	845.1	866.7	1 706.3	94.7	198.2	89	66
1986 ASM -----	(NA)	(NA)	(NA)	13.1	260.8	10.2	20.9	173.3	702.3	785.4	1 478.6	84.4	189.9	(NA)	(NA)
1985 ASM -----	(NA)	(NA)	(NA)	12.5	237.5	9.8	19.4	162.1	640.7	780.4	1 426.7	106.7	173.8	(NA)	(NA)
1984 ASM -----	(NA)	(NA)	(NA)	13.4	236.8	10.4	21.0	166.6	668.5	824.0	1 489.8	148.2	191.3	(NA)	(NA)
1983 ASM -----	(NA)	(NA)	(NA)	12.3	211.1	9.4	19.5	147.5	591.2	748.3	1 338.8	111.4	166.9	(NA)	(NA)
1982 Census ----	114	132	91	12.3	198.8	9.5	18.7	136.2	544.4	743.4	1 278.7	78.7	167.0	90	68
1981 ASM -----	(NA)	(NA)	(NA)	11.9	187.4	9.0	18.5	132.7	585.2	740.7	1 311.8	87.5	166.7	(NA)	(NA)
1980 ASM -----	(NA)	(NA)	(NA)	12.1	170.0	9.3	19.1	118.1	505.4	640.6	1 138.1	49.4	151.3	(NA)	(NA)
1979 ASM -----	(NA)	(NA)	(NA)	12.9	162.5	10.1	20.8	116.8	486.4	608.2	1 082.1	57.0	151.1	(NA)	(NA)
1978 ASM -----	(NA)	(NA)	(NA)	14.0	168.1	11.5	23.7	121.7	490.5	585.1	1 063.5	58.2	139.6	(NA)	(NA)
1977 Census ----	81	100	74	13.0	139.8	10.4	21.1	100.2	386.0	489.8	864.4	41.1	121.5	86	66
1976 ASM -----	(NA)	(NA)	(NA)	11.1	114.3	8.6	17.9	78.9	314.6	364.6	670.4	41.0	90.0	(NA)	(NA)
1975 ASM -----	(NA)	(NA)	(NA)	10.8	104.8	8.4	17.6	70.4	249.6	325.2	565.3	33.9	77.9	(NA)	(NA)
1974 ASM -----	(NA)	(NA)	(NA)	11.2	95.6	8.9	18.8	67.2	249.0	301.8	541.8	24.7	78.2	(NA)	(NA)
1973 ASM -----	(NA)	(NA)	(NA)	10.7	85.6	8.7	18.4	62.4	199.7	222.7	418.9	22.0	55.8	(NA)	(NA)
1972 Census ----	68	82	65	10.8	80.6	8.8	18.7	57.7	191.8	210.1	397.4	15.0	50.3	84	61
INDUSTRY 2298, CORDAGE AND TWINE															
1987 Census ----	174	190	77	6.8	110.4	5.4	10.6	74.0	279.7	255.9	531.7	11.8	93.2	94	94
1986 ASM -----	(NA)	(NA)	(NA)	6.0	93.8	4.7	9.2	62.4	226.2	182.5	413.0	9.5	83.5	(NA)	(NA)
1985 ASM -----	(NA)	(NA)	(NA)	6.3	92.9	5.0	9.5	61.7	211.9	182.2	394.5	923.7	93.1	(NA)	(NA)
1984 ASM -----	(NA)	(NA)	(NA)	6.6	87.1	5.2	9.6	59.4	209.8	201.9	408.8	619.0	94.2	(NA)	(NA)
1983 ASM -----	(NA)	(NA)	(NA)	7.2	93.6	5.7	10.6	62.9	200.4	206.5	412.9	15.8	92.7	(NA)	(NA)
1982 Census ----	164	181	69	6.6	77.0	5.2	9.4	51.7	181.5	178.7	358.7	17.0	89.6	92	91
1981 ASM -----	(NA)	(NA)	(NA)	6.6	69.1	5.3	9.8	48.7	183.4	183.9	359.4	14.2	78.4	(NA)	(NA)
1980 ASM -----	(NA)	(NA)	(NA)	7.2	72.8	5.7	10.6	49.7	171.3	175.9	341.7	612.6	81.7	(NA)	(NA)
1979 ASM -----	(NA)	(NA)	(NA)	9.3	85.0	7.4	13.7	58.1	201.3	192.6	387.1	8.8	87.6	(NA)	(NA)
1978 ASM -----	(NA)	(NA)	(NA)	10.5	86.7	8.9	15.3	58.6	176.7	184.7	358.2	13.2	82.5	(NA)	(NA)
1977 Census ----	151	171	84	9.5	79.5	7.9	14.2	53.7	173.8	162.9	332.2	6.5	79.4	90	95
1976 ASM⁵ -----	(NA)	(NA)	(NA)	8.7	74.4	7.3	12.0	49.2	146.5	159.9	300.1	12.7	77.7	(NA)	(NA)
1975 ASM⁵ -----	(NA)	(NA)	(NA)	8.0	68.2	6.4	10.6	42.6	149.1	143.9	288.3	11.2	70.4	(NA)	(NA)
1974 ASM⁵ -----	(NA)	(NA)	(NA)	9.2	72.9	7.6	12.8	47.3	160.4	137.9	291.5	7.9	68.9	(NA)	(NA)
1973 ASM -----	(NA)	(NA)	(NA)	9.1	58.3	7.8	15.0	43.5	125.6	98.3	221.2	5.4	48.5	(NA)	(NA)
1972 Census ----	134	156	81	9.0	55.4	7.6	15.2	40.9	96.3	92.1	191.0	4.9	42.7	86	92
INDUSTRY 2299, TEXTILE GOODS, N.E.C.															
1987 Census ----	400	523	176	16.5	317.8	13.1	26.6	212.1	720.2	753.3	1 464.9	85.4	229.1	95	88
1986 ASM -----	(NA)	(NA)	(NA)	17.0	285.2	14.0	28.0	205.6	708.7	636.3	1 333.1	57.3	214.9	(NA)	(NA)
1985 ASM -----	(NA)	(NA)	(NA)	17.0	273.6	14.2	28.4	193.6	632.0	660.2	1 296.1	33.0	201.6	(NA)	(NA)
1984 ASM -----	(NA)	(NA)	(NA)	17.5	272.5	14.5	29.1	196.0	660.9	693.5	1 352.5	33.9	209.4	(NA)	(NA)
1983 ASM -----	(NA)	(NA)	(NA)	16.3	248.9	13.3	27.2	170.0	524.4	679.3	1 186.8	26.0	201.2	(NA)	(NA)
1982 Census ----	506	523	179	17.3	242.8	14.0	27.8	166.1	507.0	617.8	1 129.2	47.0	183.9	(NA)	(NA)
1981 ASM -----	(NA)	(NA)	(NA)	18.8	251.5	15.5	32.1	172.9	550.3	697.8	1 232.9	46.1	180.0	(NA)	(NA)
1980 ASM -----	(NA)	(NA)	(NA)	18.7	234.4	15.4	32.2	161.3	500.7	632.5	1 128.4	25.2	157.5	(NA)	(NA)
1979 ASM -----	(NA)	(NA)	(NA)	20.6	233.4	17.0	36.1	163.0	492.2	636.9	1 126.0	32.6	148.8	(NA)	(NA)
1978 ASM -----	(NA)	(NA)	(NA)	21.7	222.3	17.9	35.9	156.3	460.1	574.4	1 034.1	38.4	136.5	(NA)	(NA)

See footnotes at end of table.

Table 1. Historical Statistics for the Industry: 1987 and Earlier Years—Con.

[Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

Year ¹	All establishments ³			All employees		Production workers			Value added by manufac- ture ⁴ (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expend- itures (million dollars)	End-of- year invent- ories ⁴ (million dollars)	Ratios	
	Com- panies ² (no.)	Total (no.)	With 20 employ- ees or more (no.)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						Spe- cial- ization (per- cent)	Cover- age (per- cent)
7INDUSTRY 2299, TEXTILE GOODS, N.E.C.—Con.															
1977 Census ----	677	701	212	19.9	191.4	16.2	33.2	134.4	398.4	466.4	859.0	30.3	111.2	(NA)	(NA)
1976 ASM -----	(NA)	(NA)	(NA)	21.7	194.6	18.0	36.4	136.4	356.7	402.3	754.5	29.2	99.2	(NA)	(NA)
1975 ASM -----	(NA)	(NA)	(NA)	17.3	154.1	14.6	27.8	103.2	257.8	336.2	601.0	27.6	86.3	(NA)	(NA)
1974 ASM -----	(NA)	(NA)	(NA)	20.1	158.7	16.8	33.0	110.3	295.8	407.3	693.7	53.9	96.3	(NA)	(NA)
1973 ASM -----	(NA)	(NA)	(NA)	21.8	164.8	17.9	37.4	115.3	338.3	393.3	728.3	31.1	93.6	(NA)	(NA)
1972 Census ----	597	630	205	21.3	148.6	17.5	36.7	105.8	303.6	324.9	626.7	22.3	80.1	(NA)	(NA)

Note: Establishments of single unit companies with up to 20 employees (cutoff varied by industry) were excluded from the mail portion of the census. Data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were estimated based on administrative-record information from other agencies in conjunction with industry averages. These establishments accounted for the following percent of total value of shipments: SIC 2295, 15%; SIC 2296, 4%; SIC 2297, 16%; SIC 2298, 22%; SIC 2299, 15%.

¹In annual survey of manufactures (ASM) years, data are estimates based on a representative sample of establishments canvassed annually and may differ from results of a complete canvass of all establishments. ASM publication shows percentage standard errors. Unless otherwise noted, for data prior to 1972, see 1972 Census of Manufactures, vol. II, table 1a of the Industry chapter.

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during year.

⁴Beginning with the 1982 Census of Manufactures, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior Censuses and annual surveys of manufactures in which respondents were permitted to value their inventories using any generally accepted accounting method. Consequently, inventories and value added by manufacture reported for 1982 and later years are not comparable to prior-year data.

⁵Data either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data; thus, these estimates may be of limited reliability.

⁶Estimates for new capital expenditures have associated standard error of 15 percent or more and may be of limited reliability. Estimates for other data items are of acceptable reliability.

⁷Industry 2299 was redefined for 1987. It is composed of 1982 industries 2291, 2293, 2294, and 2299.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987				1982			
		Number of companies with shipments of \$100,000 or more	Product shipments ¹		Value (million dollars)	Number of companies with shipments of \$100,000 or more	Product shipments ¹		Value (million dollars)
			Quantity ²				Quantity ²		
2295—	COATED FABRICS, NOT RUBBERIZED								
	Total -----	(NA)	(X)		1 351.7	(NA)	(X)		1 069.3
22951 —	Pyroxylin coated fabrics (on a textile base) -----	(NA)	(X)		43.7	(NA)	(X)		44.1
22951 11	Light cotton fabrics (print cloths, sheetings, etc.) ----- mil lin yd.	1	(D)		(D)	8	20.5		22.8
22951 15	Heavy cotton fabrics (ducks, drills, twills, sateens, etc.) ----- do.	3	7.2		16.9	3	(D)		(D)
22951 19	Fabrics other than cotton ----- do.	1	(D)		(D)	4	(D)		(D)
22951 00	Pyroxylin coated fabrics, n.s.k. -----	(NA)	(X)		(D)	(NA)	(X)		1.0
22952 —	Vinyl coated fabrics (including expanded vinyl coated fabrics) -----	(NA)	(X)		712.6	(NA)	(X)		628.5
22952 13	Lightweight fabrics, 10 oz or less per sq yd finished weight: -----								
22952 15	Woven fabrics base ----- mil lin yd.	14	38.5		64.8	13	*19.4		27.0
22952 17	Knit fabrics base ----- do.	6	20.1		(S)	14	21.4		40.8
	Nonwoven base ----- do.	3	(S)		22.6	14	24.2		46.4
22952 22	Mediumweight fabrics, more than 10 oz up to and including 16 oz per sq yd finished weight: -----								
22952 24	Woven fabrics base ----- mil lin yd.	15	31.6		86.8	20	33.2		93.4
22952 26	Knit fabrics base ----- do.	8	*3.6		15.1	13	24.8		66.9
	Nonwoven base ----- do.	8	*29.1		51.9	8	14.8		49.8
22952 32	Heavyweight fabrics, more than 16 oz per sq yd finished weight: -----								
22952 34	Woven fabrics base ----- mil lin yd.	23	*54.4		188.2	21	26.4		83.1
22952 36	Knit fabrics base ----- do.	10	29.8		140.9	13	31.5		127.0
22952 00	Nonwoven base ----- do.	9	25.3		98.2	12	15.5		60.7
	Vinyl coated fabrics, n.s.k. -----	(NA)	(X)		24.1	(NA)	(X)		33.6
22953 —	Other coated fabrics -----	(NA)	(X)		493.1	(NA)	(X)		332.4
22953 15	Polyurethane coated fabrics ----- mil lin yd.	11	*12.4		78.9	16	28.5		88.8
	All other coated fabrics, including polyolefin, polyamides, fluoride polymers, etc., but excluding pyroxylin, vinyl, and rubber: -----								
22953 22	Lightweight fabrics, 10 oz or less per sq yd finished weight: -----								
22953 24	Woven fabrics base ----- mil lin yd.	20	**123.9		223.9	17	63.9		97.9
22953 26	Knit fabrics base ----- do.	2	(D)		(D)	6	(D)		(D)
22953 38	Nonwoven base ----- do.	5	(D)		(D)	2	(D)		(D)
22953 48	Mediumweight fabrics, more than 10 oz up to and including 16 oz per sq yd finished weight, all types of base ----- do.	9	**11.6		35.0	10	12.0		35.4
22953 98	Heavyweight fabrics, more than 16 oz per sq yd finished weight, all types of base ----- do.	9	(S)		39.8	9	10.5		29.1
22953 00	Coated yarns, all types except rubber ----- mil lb.	10	(S)		39.6	(NA)	—		—
	All other coated fabrics, except rubber coated, n.s.k. -----	(NA)	(X)		22.6	(NA)	(X)		39.9
22950 —	Coated yarns, all types except rubber -----	(NA)	(X)		102.4	(NA)	(X)		64.3
22950 00	Coated fabrics, except rubberized, n.s.k., typically for establishments with 20 employees or more (see note) -----	(NA)	(X)		47.5	(NA)	(X)		41.0
22950 02	Coated fabrics, except rubberized, n.s.k., typically for establishments with less than 20 employees (see note) -----	(NA)	(X)		54.9	(NA)	(X)		23.3

See footnotes at end of table.

Table 2. **Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987			1982		
		Number of companies with shipments of \$100,000 or more	Product shipments ¹		Number of companies with shipments of \$100,000 or more	Product shipments ¹	
			Quantity ²	Value (million dollars)		Quantity ²	Value (million dollars)
2296- --	TIRE CORD AND FABRICS						
	Total -----	(NA)	(X)	982.3	(NA)	(X)	892.2
22960 --	Tire cord and tire fabrics:						
22960 00	Tire cord and tire cord fabrics ----- mil lb..	10	*581.9	982.3	14	446.6	892.2
22960 02	Tire cord and tire fabrics, n.s.k., typically for establishments with less than 5 employees (see note) -----	(NA)	(X)	-	(NA)	(X)	-
2297- --	NONWOVEN FABRICS						
	Total -----	(NA)	(X)	2 269.3	(NA)	(X)	1 658.8
22971 --	Nonwoven fabrics -----	(NA)	(X)	1 715.8	(NA)	(X)	1 263.0
	Laminated and wet laid:						
22971 21	Less than 1 oz per sq yd ----- mil sq yd..	16	(S)	140.1	14	1 343.0	131.8
22971 23	1 to 2.5 oz per sq yd ----- do..	13	(S)	179.8	13	348.1	100.2
22971 25	More than 2.5 oz per sq yd ----- do..	16	(S)	103.7	21	184.4	111.9
	Spun bonded, dry laid, etc.:						
22971 31	Less than 0.8 oz per sq yd ----- mil sq yd..	16	*3 770.7	330.0	14	3 790.4	276.6
22971 33	0.8 oz to 1.5 oz per sq yd ----- do..	14	2 500.3	624.2	22	2 150.7	349.5
22971 35	More than 1.5 oz per sq yd ----- do..	21	598.7	318.1	35	761.5	280.0
22971 00	Nonwoven fabrics, n.s.k. -----	(NA)	(X)	20.0	(NA)	(X)	13.1
22972 --	Fabricated nonwoven products ³ -----	(NA)	(X)	482.7	(NA)	(X)	360.4
	Ribbons, nonwoven, for gift tyings (decorative string, bows, rosettes, and ribbons, including all gift tyings defined as nonwoven, both laminated and nonlaminated):						
22972 03	Christmas gift tyings ----- mil lin yd..	8	(S)	30.6	6	(S)	30.1
22972 05	Other gift tyings ----- do..	8	(S)	67.6	14	(S)	37.5
22972 43	Blankets made from nonwoven fabrics (all types):						
	Made from chiefly cotton fiber (see also codes 2392482 and 2392493) ----- 1,000 doz..	2	(S)	122.5	4	1 236.7	89.6
22972 45	Made from chiefly noncellulosic fiber (see also codes 2392491 and 2392495) ----- do..	5					
22972 48	Made from all other fiber (see also codes 2392492 and 2392496) ----- do..	3					
22972 51	Wipers made from nonwoven fabrics (including windshield, industrial, and lithographic) ----- mil doz..	13	**353.8	93.8	10	*134.9	53.1
22972 98	All other fabricated nonwoven products, excluding diapers and orthopedic, prosthetic, and surgical supplies -----	18	(X)	167.7	18	(X)	142.6
22972 00	Fabricated nonwoven products, n.s.k. -----	(NA)	(X)	.6	(NA)	(X)	7.4
22970 --	Nonwoven fabrics and related products, n.s.k. -----	(NA)	(X)	70.8	(NA)	(X)	35.4
22970 00	Nonwoven fabrics and related products, n.s.k., typically for establishments with 20 employees or more (see note) -----	(NA)	(X)	40.9	(NA)	(X)	25.1
22970 02	Nonwoven fabrics and related products, n.s.k., typically for establishments with less than 20 employees (see note) -----	(NA)	(X)	29.9	(NA)	(X)	10.3
2298- --	CORDAGE AND TWINE						
	Total -----	(NA)	(X)	481.0	(NA)	(X)	336.0
22981 --	Hard fiber cordage and twine -----	(NA)	(X)	95.4	(NA)	(X)	58.3
22981 18	Abaca rope and cable ----- mil lb..	5	*4.6	6.8	7	(S)	3.7
22981 29	Other hard fiber rope and cable ----- do..	14	39.5	75.6	13	(S)	36.6
22981 35	Hard fiber twine, including products laid or twisted, but not of stranded construction; twine made of hard fiber tow and of istle run over hard fiber machinery, including twine and cord made of a construction of hard fiber and paper ----- do..	4	(D)	(D)	8	16.2	17.0
22981 00	Hard fiber cordage and twine, n.s.k. -----	(NA)	(X)	(D)	(NA)	(X)	.9
22982 --	Soft fiber cordage and twine (except cotton) -----	(NA)	(X)	273.9	(NA)	(X)	228.1
	Manmade fiber cordage and twine:						
	Fish line:						
22982 01	Commercial ----- mil lb..	4	(D)	(D)	13	14.0	21.9
22982 02	Recreational ----- do..	5					
	Fish net and fish netting:						
22982 03	Commercial ----- mil lb..	12	6.8	28.2	18	6.4	31.2
22982 05	Recreational ----- do..	4	(S)	3.4			
22982 08	Rope 3/16 inch diameter and larger ----- do..	21	*34.9	65.5	19	28.8	63.1
22982 15	All other manmade fiber cordage and twine, including industrial and agricultural twine, less than 3/16 inch diameter ----- do..	29	*152.6	109.9	30	55.7	71.9
22982 28	Soft fiber cordage and twine, except cotton and manmade, including hemp, jute, and paper ----- do..	8	(S)	18.6	12	35.0	32.0
22982 00	Soft fiber cordage and twine, except cotton, n.s.k. -----	(NA)	(X)	(D)	(NA)	(X)	8.0
22983 --	Cotton cordage and twine -----	(NA)	(X)	40.8	(NA)	(X)	21.8
22983 11	Braided cord (regardless of size) ----- mil lb..	9	**7.5	12.9	6	1.1	3.3
22983 25	Wrapping, seine, and other twine ----- do..	5	*6.7	9.6	5	4.6	6.3
22983 98	All other cotton cordage and twine, including fish nets ----- do..	5	(S)	14.2	11	5.0	11.7
22983 00	Cotton cordage and twine, n.s.k. -----	(NA)	(X)	4.0	(NA)	(X)	.6
22980 --	Cordage and twine, n.s.k. -----	(NA)	(X)	70.9	(NA)	(X)	27.8
22980 00	Cordage and twine, n.s.k., typically for establishments with 10 employees or more (see note) -----	(NA)	(X)	46.5	(NA)	(X)	15.3
22980 02	Cordage and twine, n.s.k., typically for establishments with less than 10 employees (see note) -----	(NA)	(X)	24.4	(NA)	(X)	12.5

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987			1982		
		Number of companies with shipments of \$100,000 or more	Product shipments ¹		Number of companies with shipments of \$100,000 or more	Product shipments ¹	
			Quantity ²	Value (million dollars)		Quantity ²	Value (million dollars)
2299- --	TEXTILE GOODS, N.E.C.						
	Total	(NA)	(X)	1 431.7	(NA)	(X)	1 145.6
22991 --	Pressed, punched, or needled felts, except hats	(NA)	(X)	428.2	(NA)	(X)	261.9
	Pressed wool felts:						
	Industrial felts (1/8 inch thick or more):						
22991 12	Not coated, impregnated, covered, or laminated..... mil lb..	9	(S)	51.8	(NA)	(NA)	(NA)
22991 13	Coated, impregnated, covered, or laminated	3	(D)	(D)	(NA)	(NA)	(NA)
	Other pressed wool felts:						
22991 15	Not coated, impregnated, covered, or laminated..... mil lb..	1	(D)	(D)	6	17.6	45.2
22991 17	Coated, impregnated, covered, or laminated	-	-	-	6	17.6	45.2
	Other pressed felts:						
22991 21	Not coated, impregnated, covered, or laminated..... mil lb..	2	(S)	(D)	6	14.0	41.9
22991 23	Coated, impregnated, covered, or laminated	-	-	-			
	Punched or needle felts:						
22991 35	Hair and/or jute felts, including carpet and rug linings and cushions..... mil sq yd..	6	*28.9	33.5	6	(NA)	34.2
22991 47	Wool and manmade fiber felts, excluding carpet and rug suitable for outdoor use (indoor/outdoor)..... mil lb..	17	(S)	285.0	15	74.7	138.6
22991 00	Felt goods, except woven felts and hats, n.s.k.	(NA)	(X)	7.3	(NA)	(X)	2.0
22994 --	Recovered fibers, processed mill waste, and related products	(NA)	(X)	190.5	(NA)	(X)	186.7
22994 22	Cotton	9	*61.6	20.1			
	Manmade fibers:						
22994 31	Cellulosic fibers..... mil lb..	4	11.8	4.9	(NA)	(X)	138.3
22994 35	Noncellulosic fibers	12	*278.1	90.1			
22994 39	All other fibers, including oakum..... do..	2	(D)	(D)			
22994 41	Flock, all fibers (new stock, waste, or reclaimed fiber)	10	(S)	37.2	9	(X)	39.8
22994 00	Processed textile waste and recovered fibers, n.s.k.	(NA)	(X)	(D)	(NA)	(X)	8.6
22995 --	Paddings and upholstery filling, batting, and wadding (excluding foam rubber and plastics)	(NA)	(X)	428.4	(NA)	(X)	283.8
22995 17	Automotive pads	13	**134.2	147.9	11	(X)	42.4
22995 19	All other paddings	17	(S)	66.1	18	(X)	59.0
	Batting, wadding, and mattress felts:						
22995 32	Made from cotton linters, cotton waste, and raw cotton	27	*132.5	57.6	31	(X)	61.3
22995 33	Made from manmade fibers	23	*110.0	104.1	25	(X)	73.0
22995 35	Made from all other fibers	2					
22995 57	Upholstery filling	6	23.9	23.3	12	(X)	21.1
22995 00	Paddings and upholstery filling, n.s.k.	(NA)	(X)	28.4	(NA)	(X)	27.1
22996 --	Jute goods and scouring and combing mill products	(NA)	(X)	217.7	(NA)	(X)	220.1
	Jute goods (except jute felts, cordage, and twine) and linen goods:						
22996 01	Jute yarn, bagging and all other jute woven goods, except felt, cordage, or twine	4	(X)	(D)	9	(X)	7.8
22996 03	Linen thread, fabric, and other linen goods, except cordage or twine	1	(X)	(D)	9	(X)	16.8
	Scouring and combing mill products:						
22996 10	Tops and noils (including top or sliver converted from tow without combing)..... mil lb..	13	(S)	85.7	10	105.5	155.2
22996 11	Scoured wool and other scouring and combing mill products, including nubs and slubs, etc.	10	*83.4	127.6	10	31.8	40.4
22996 00	Jute goods and scouring and combing mill products, n.s.k.	-	(X)	-	(NA)	(X)	-
22990 --	Textile goods, n.e.c., n.s.k.	(NA)	(X)	166.9	(NA)	(X)	193.1
22990 00	Textile goods, n.e.c., n.s.k., typically for establishments with 5 employees or more (see note)	(NA)	(X)	119.8	(NA)	(X)	167.9
22990 02	Textile goods, n.e.c., n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)	47.1	(NA)	(X)	25.2

Note: In 1987 Census of Manufactures, data for establishments of small single unit companies with up to 20 employees were estimated from administrative-record data rather than data actually collected from respondents. Employment cutoffs used for administrative records for each industry and shipments figures are included in code ending with "002". In both 1987 and 1982 Censuses of Manufactures, products not completely identified on standard forms were coded in appropriate product class (five-digit) followed by "00" or to appropriate product group code (four-digit) followed by "000".

¹Data reported by all producers, not just those with shipments of \$100,000 or more.

²For some establishments, data have been estimated from central unit values which are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equal or exceeds 10 percent of published figure: *10 to 19 percent estimate; **20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

³See bulletin MC87-1-23E(P) for data on blankets.

Table 3. Materials Consumed by Kind: 1987 and 1982

[includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
	INDUSTRY 2295, COATED FABRICS, NOT RUBBERIZED				
	Materials, containers, and supplies -----	(X)	841.2	(X)	613.2
282303 282403	Textile fibers (manmade): Cellulosic (rayon and acetate) ----- mil lb.. Noncellulosic (polyester, nylon, etc.) ----- do..	*54.0	54.9	(3)	(3)
228102 282011	Yarns: Cotton ----- mil lb.. Manmade fiber ----- do..				
220234 220241 262104 289147 280010	Fabrics: Cotton ----- mil lin yd.. Manmade fiber including glass ----- do.. Paper (cellulosic wadding) ----- mil lb.. Adhesives and binders (resins) ----- do.. Additives (fire retardants, water repellants, softeners, antistatics, etc.) -----	**74.0 *122.7 (S) (S) (X)	71.8 125.9 11.1 18.9 8.8	85.0 241.6 (3) (3) (X)	60.1 179.5 (3) (3) (3)
286935 282137	Plasticizers ----- mil lb.. Vinyl and vinyl copolymer resins, all forms ----- do..	81.1 111.7	46.7 58.0	69.2 *174.7	39.2 73.1
282104 308007	Plastics resins, except vinyl, consumed in the form of granules, pellets, powders, liquids, etc. ----- do.. Plastics products consumed in the form of sheets, rods, tubes, and other shapes -----	**152.7 (X)	82.0 25.4	42.1 (X)	30.2 18.3
970099 971000	All other materials, containers, and supplies ----- Materials, containers, and supplies, n.s.k. ² -----	(X) (X)	172.6 150.3	(X) (X)	³ 170.9 41.9
	INDUSTRY 2296, TIRE CORD AND FABRICS				
	Materials, containers, and supplies -----	(X)	644.5	(X)	656.6
013101 282301 282423 282411 282407 322935 970099 971000	Raw cotton ----- 1,000 bales.. Rayon and acetate filament yarns ----- mil lb.. Polyester filament yarns ----- do.. Nylon filament yarns ----- do.. All other manmade filament yarn, except glass ----- do.. Glass filament yarn and roving ----- do.. All other materials, containers, and supplies ----- Materials, containers, and supplies, n.s.k. -----	(D) (D) *119.2 *216.9 16.3 4.7 (X) (X)	(D) (D) 161.4 342.2 32.7 6.9 (D) 2.5	(NA) (NA) 165.7 154.7 13.7 38.6 (X) (X)	29.5 (NA) 210.9 262.5 27.1 103.6 23.0 -
	INDUSTRY 2297, NONWOVEN FABRICS				
	Materials, containers, and supplies -----	(X)	779.6	(X)	679.2
220234 220241	Fabrics: Cotton ----- mil lin yd.. Manmade fiber including glass ----- do..	11.6 *49.9	9.1 14.1	(3) (3)	(3) (3)
282303 282403	Textile fibers: Cellulosic (rayon and acetate) ----- mil lb.. Noncellulosic (polyester, nylon, etc.) ----- do..	71.2 242.3	52.3 188.5	78.6 261.3	66.6 211.8
228102 282011 261104 262104 999825 289147 280010	Yarns: Cotton ----- mil lb.. Manmade fiber (rayon, acetate, nylon, etc.) ----- do.. Wood pulp ----- 1,000 s tons.. Paper (cellulosic wadding) ----- mil lb.. New and used rags, clips, etc. ----- do.. Adhesives and binders (resins) ----- do.. Additives, such as fire retardants, water repellants, softeners, and antistatics -----	**8.0 6.0 (S) (S) (S) *66.2 (X)	10.7 3.2 39.5 10.5 44.6 16.9	29.6 10.8 (D) (3) 121.5 (X)	25.8 4.2 (D) (3) 72.6 18.3
286935 282137 282104 308007	Plasticizers ----- mil lb.. Vinyl and vinyl copolymer resins, all forms ----- do.. Plastics resins, except vinyl, consumed in the form of granules, pellets, powders, liquids, etc. ----- do.. Plastics products consumed in the form of sheets, rods, tubes, and other shapes -----	(S) *22.7 *202.3 (X)	.8 14.9 108.7 4.0	(3) (3) 83.3 (X)	(3) (3) 32.4 (D)
970099 971000	All other materials, containers, and supplies ----- Materials, containers, and supplies, n.s.k. ² -----	(X) (X)	130.8 131.0	(X) (X)	³ 166.1 31.8
	INDUSTRY 2298, CORDAGE AND TWINE				
	Materials, containers, and supplies -----	(X)	206.1	(X)	148.8
228102 282011	Cotton yarns ----- do.. Manmade fiber yarn (rayon, acetate, nylon, etc.) ----- do..	(S) 31.7	3.5 38.2	20.1 48.8	14.8 60.1
282303 282403 289147 280010	Textile fibers (manmade): Cellulosic (rayon and acetate) ----- mil lb.. Noncellulosic (polyester, nylon, etc.) ----- do.. Adhesives and binders (resins) ----- do.. Additives, such as fire retardants, water repellants, softeners, and antistatics, etc. -----	*19.1 (S) (X)	22.0 .1 3.1	(3) (3) (3)	(3) (3) (3)
970099 971000	All other materials, containers, and supplies ----- Materials, containers, and supplies, n.s.k. ² -----	(X) (X)	84.7 54.5	(X) (X)	³ 56.8 17.1
	INDUSTRY 2299, TEXTILE GOODS, N.E.C.				
	Materials, containers, and supplies -----	(X)	617.7	(X)	517.8
013101 190019 207431 020001 999823	Raw cotton ----- 1,000 bales.. Cotton waste ----- mil lb.. Cotton linters ----- do.. Raw wool, mohair, and other animal fibers (scoured weight) ----- do.. Wool noils and waste ----- do..	*80.9 135.9 *34.0 (S) (S)	24.3 14.5 10.0 44.6 20.4	(3) (D) *25.5 3.6 (D)	(3) (D) 2.6 6.2 (D)

See footnotes at end of table.

Table 3. Materials Consumed by Kind: 1987 and 1982—Con.

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
	INDUSTRY 2299, TEXTILE GOODS, N.E.C.—Con.				
	Fabrics:				
220234	Cotton mil lin yd..	(D)	(D)	(3)	(3)
220241	Manmade fiber, including glass do..	(S)	1.4	(3)	(3)
	Textile fibers:				
282303	Cellulosic (rayon and acetate) mil lb..	(S)	5.9	(3)	(3)
282403	Noncellulosic (polyester, nylon, etc.) do..	*315.4	182.5	(3)	(3)
	Yarns:				
228102	Cotton mil lb..	(S)	1.0	.5	1.1
282011	Manmade fiber (rayon, acetate, nylon, etc.) do..	(S)	25.0		
261104	Wood pulp 1,000 s tons..	(D)	(D)	(3)	(3)
262104	Paper (cellulosic wadding) mil lb..	(D)	(D)	(3)	(3)
999825	New and used rags, clips, etc. do..	(S)	15.7	(D)	(D)
289147	Adhesives and binders (resins) do..	(S)	14.0	(3)	(3)
280010	Additives (fire retardants, water repellants, softeners, antistatics, etc.) do..	(X)	9.1	(3)	(3)
286935	Plasticizers mil lb..	4.1	1.6	(3)	(3)
282137	Vinyl and vinyl copolymer resins, all forms do..	1.8	.8	(3)	(3)
282104	Plastics resins, except vinyl, consumed in the form of granules, pellets, powders, liquids, etc. do..	(S)	8.6	(D)	(D)
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes do..	(X)	7.1	(D)	(D)
970099	All other materials, containers, and supplies do..	(X)	67.2	(X)	³ 119.6
971000	Materials, containers, and supplies, n.s.k. do..	(X)	154.1	(X)	80.8

¹For some establishments, data have been estimated from central unit values which are based on quantity-cost relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

²Total cost of materials of establishments that did not report detailed materials data, including establishments that were not mailed a form.

³For 1982, data for these material codes were included with material code 970099.

APPENDIX

Scope and Coverage and Explanation of Terms

GENERAL

The 1987 Census of Manufactures is the 32nd census of manufacturing establishments conducted in the United States. For 1987, it was conducted as part of the economic censuses, which included the censuses of mineral industries, construction industries, retail and wholesale trades, service industries, selected transportation activities, and minority-owned and women-owned businesses, under authority of title 13 of the United States Code. Title 13 specifies that an economic census be conducted every 5 years to cover years ending in 2 and 7.

SCOPE AND COVERAGE

Establishment Basis of Reporting

The census of manufactures is conducted on an establishment basis. All manufacturing establishments with one paid employee or more at any time during the year are covered by the census of manufactures. Therefore, a company operating at more than one location is required to file a separate report for each location. This report excludes information for separately operated administrative offices, warehouses, garages, and other auxiliary units which service manufacturing establishments of the same company. Where these auxiliary operations are conducted at the same location as the manufacturing operation, they are usually included in the report for the operating manufacturing establishment.

Use of Administrative Records

From a universe of approximately 350,000 manufacturing establishments in the 1987 Census of Manufactures, approximately 150,000 small single-establishment companies were excused from filing reports. Selection of the small establishment nonmail cases was done on an industry-by-industry basis. A variable cutoff was used to determine those establishments for which administrative records were to be used in place of a census report. The cutoffs were selected so the administrative-record cases would account for approximately 3 percent or less of the value of shipments for the industry. These cutoffs were then adjusted so that all single-establishment companies with less than 5 employees were excluded from the mail canvass, while all establishments with more than 20 employees were included. Where establishments in the 5 to 20 employee size range were included in the mail canvass, an abbreviated census form was frequently used.

For these nonmail establishments, (and a small number of larger establishment whose reports were not received at the time the data were tabulated) data on employment, payroll, and receipts were obtained from administrative records of other government agencies rather than from census forms. The administrative-record information was then used in conjunction with industry averages to estimate the data for these establishments. The value of shipments and cost of materials were not distributed among specific products and materials but were included in the product and material "not specified by kind" (n.s.k.) categories.

EXPLANATION OF TERMS

Number of establishments and companies—A separate report was required for each manufacturing establishment (plant) with one employee or more. An establishment is defined as a single physical location where manufacturing is performed. A company, on the other hand, is defined as a business organization consisting of one establishment or more under common ownership or control.

All employees—Includes all full-time and part-time employees on the payrolls at any time during the year. Included are all persons on paid sick leave, paid holidays, and paid vacations. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employees" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for midmonth payroll periods of March, May, August, and November.

Production workers—Includes workers up through the working-supervisor level engaged in fabricating, processing, assembling, inspecting, receiving, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial, guard services, product development, auxiliary production for plant's own use (e.g., power-plant), recordkeeping, and other closely associated services. Truckdrivers delivering ready-mixed concrete are also included in production workers.

Other employees—Includes nonproduction personnel, including those engaged in the following activities: supervision above working-supervisor level, sales (including driver/salespersons), sales delivery (truckdrivers and helpers), advertising, credit collection, installation and

servicing of own product, clerical and routine office functions, executive, purchasing, finance, legal, personnel (including cafeteria, etc.), professional, and technical employees.

Payroll—Includes the gross earnings for the “employees” defined above, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees’ Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

Production-worker hours—Covers hours worked or paid for at the plant, including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

Cost of materials—Refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuels consumed, regardless of whether they were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or generating electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

Specific materials consumed (table 3)—In addition to the total cost of materials which every establishment was required to report, information was also collected for most manufacturing industries on the consumption of major materials used in manufacturing. These inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers’ records. Establishments consuming less than a specified amount (usually \$10,000) of a specific material were not requested to report consumption of that material separately. Also, the cost of materials for the small establishments for which administrative records were used was estimated as “not specified by kind” (n.s.k.).

Value of shipments and other receipts—Generally refers to received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all

miscellaneous receipts such as receipts for contract work performed for others, installation and repair receipts, sale of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishment from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by another was reported by the plant providing the materials.

In a few industries, the value of production or value of work completed is used instead of value of shipments. These industries are identified in the introduction and are footnoted in table 1.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value, that is, including not only the direct costs of production but also a reasonable proportion of “all other costs” (including company overhead and profit).

Shipments or production of individual products (table 2)—In the 1987 census, detailed shipment information was collected for approximately 11,000 individual products. These products are identified by a seven-digit code and are grouped into approximately 1,500 classes of products, which in turn are primary to 459 four-digit industries. Data at the five-digit product-class level have been collected each year as part of the annual survey of manufactures. Information at the seven-digit level, collected for many industries in the current industrial reports program, is not included in this table.

Value added by manufacture—This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacturing, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

For those industries where value of production is collected instead of value of shipments (see footnote in table 1), value added is adjusted only for the change in work-in-process inventories between the beginning and end of the year. For those industries where value of work done is collected, the value added does not include an adjustment for the change in finished goods or work-in-process inventories.

Value added avoids the duplication in the figure for value of shipments which results from the use of products of some establishments as materials by others. Value

added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

Expenditures for new plant and equipment—Establishments in operation and any known plants under construction were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments and (b) new machinery and equipment used for replacement and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expenses. Data for used plant and equipment will be published in the final industry bulletin.

End-of-year inventories—Comprised of (a) finished products; (b) work-in-process; and (c) materials, supplies, fuels, etc. Beginning in 1982, respondents were asked to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior years in which respondents were permitted to value their inventories using any generally accepted accounting method.

Therefore, 1982 through 1987 data for inventories are not strictly comparable to prior-year data.

Specialization and coverage ratios—An establishment is classified in a particular industry if its shipments of primary products of the industry exceed in value its shipments of the products of any other single industry. An establishments' shipments include those products assigned to an industry (primary products), those considered primary to other industries (secondary products), and receipts for miscellaneous activities (merchandising, contract work, resales, etc.). The following ratios have been developed to measure the relationship of primary product shipments to the data on shipments for the industry shown in table 1 and data on product shipments shown in table 2.

Specialization ratio—Represents the ratio of primary product shipments to total product shipments (primary and secondary, excluding miscellaneous receipts) for the establishments classified in the industry.

Coverage ratio—Represents the ratio of primary products shipped by the establishments classified in the industry to the total shipments of such products that are shipped by all manufacturing establishments, wherever classified.

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